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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE PATENT APPLICATION OF: WILLIAMS, Allan
SERIAL NO: 09/871,910 GROUP ART UNIT: 2176
FILING DATE: 06/04/2001 EXAMINER: Nathan Hillery
SUBJECT: METHOD AND SYSTEM FOR GENERATING A VALUE
ENHANCED DERIVATIVE DOCUMENT FROM A PATENT
DOCUMENT
Confirmation No: 2026

COMMISSIONER FOR PATENTS
WASHINGTON, D.C., 20231, U.S.A.

April 21, 2006

Before the Board of Patent Appeals and Interferences
Appeal Brief

Sir:

Further to the Notice of Appeal filed February 28, 2006, the applicant submits herewith an Appeal Brief in triplicate in connection with this application.

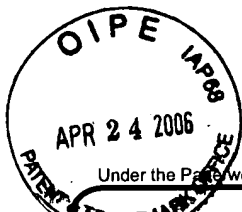
Please charge the fee of \$250.00 USD for filing this Appeal brief, and charge any further fee, which may be required or credit overpayment, to the credit card of Victoria Donnelly (the authorization form is attached hereto).

Yours truly,
Dr. Allan Williams

By

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PTO/SB/17 (12-04v2)

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Pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL

For FY 2006

☒ Applicant claims small entity status. See 37 CFR 1.27TOTAL AMOUNT OF PAYMENT (\$)
250.00**Complete if Known**

Application Number	09/871,910
Filing Date	June 04, 2001
First Named Inventor	WILLIAMS, Allan
Examiner Name	HILLERY, Nathan
Art Unit	2176
Attorney Docket No.	P-001

METHOD OF PAYMENT (check all that apply)☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____☐ Deposit Account Deposit Account Number: _____ Deposit Account Name: _____

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**☐ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☐ Credit any overpayments**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	<u>Small Entity</u> Fee (\$)	Fee (\$)	<u>Small Entity</u> Fee (\$)	Fee (\$)	<u>Small Entity</u> Fee (\$)	
Utility	300	150	500	250	200	100	_____
Design	200	100	100	50	130	65	_____
Plant	200	100	300	150	160	80	_____
Reissue	300	150	500	250	600	300	_____
Provisional	200	100	0	0	0	0	100

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	<u>Small Entity</u> Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180
Total Claims	Extra Claims	Fee (\$)
_____ - 20 or HP = _____	x _____	= _____
HP = highest number of total claims paid for, if greater than 20.		
Indep. Claims	Extra Claims	Fee (\$)
_____ - 3 or HP = _____	x _____	= _____
HP = highest number of independent claims paid for, if greater than 3.		
Multiple Dependent Claims		Fee (\$)
_____		= _____

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

<u>Total Sheets</u>	<u>Extra Sheets</u>	<u>Number of each additional 50 or fraction thereof</u>	<u>Fee (\$)</u>	<u>Fees Paid (\$)</u>
_____ - 100 = _____	/ 50 = _____	(round up to a whole number) x _____	= _____	

4. OTHER FEE(S)

Non-English Specification,

Other (e.g., late filing surcharge): APPEAL BRIEF FEEFees Paid (\$)

250.00

SUBMITTED BY

Signature		Registration No. (Attorney/Agent) 44,185	Telephone 613-270-6026
Name (Print/Type)	Victoria Donnelly		Date April 21, 2006

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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THE UNITED STATES PATENT AND TRADEMARK OFFICE

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April 21, 2006

Before the Board of Patent Appeals and Interferences
Appeal Brief

I. Real Party in Interest and General Statement

The real party in interest is Dr. Allan Williams and Dr. Victoria Donnelly, inventors and owners of this application.

This is an appeal from the decision of the Primary Examiner, in a Final action dated December 01, 2005 and in Advisory action dated March 10, 2006, finally rejecting claims 1, 2, 5, 7-16, 19, 21-27, 37-40, 43, 46, 47 and 51-56 of this application.

II. Related Appeals and Interferences

None

III. Status of Claims

The status of the claims of this application is as follows:

Claims 1, 2, 5, 7-16, 19, 21-27, 37-40, 43, 46, 47 and 51-56 -- Rejected -- Appealed herein.

A copy of claims 1, 2, 5, 7-16, 19, 21-27, 37-40, 43, 46, 47 and 51-56 in this appeal is contained in the Appendix.

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IV. Status of Amendments

In response to the final action filed February 28, 2006, amendments in claims 54 and 56 were requested, and claims 12, 24, 46 and 47 were requested to be canceled.

The Advisory Action dated March 10, 2006 stated that these amendments would not be entered on the filing of this appeal.

Accordingly, the copy of claims in the Appendix does not incorporate these requested amendments.

V. Summary of claimed subject matter

The present invention relates to a system and method for generating a derivative value enhanced document from a patent document, respectively including means or respective method steps for:

- simple and efficient computer processing of the claim section of the patent document;
- converting the processed claim section into graphical and textual form; and
- simultaneous displaying of the converted claim section or any subset thereof in both forms and in an interactive manner.

In view of the rapid growth of the number of patents available for viewing, it becomes critical to reduce time of computer processing of the claim section of the patent document, which, in turn, translates into simplicity and efficiency of the method used for processing of the claim section.

Accordingly, this problem, corresponding to the first statement shown above (simple and efficient computer processing), has been addressed by independent claims 1, 15, 25 and 51, including unique processing steps (ii) and (iii) of claim 1 of the method of the present invention (or corresponding means of the system of the present invention).

VI. Issues (Grounds of rejections to be reviewed on appeal)

The issue in this appeal is as follows:

The examiner states, and the applicant disagrees, that Rivette (US 6,339,767) anticipates independent claims 1, 15, 25 and 52 of the present invention.

More specifically, the examiner states, and the applicant disagrees, that Rivette teaches steps (ii) and (iii) of the method of claim 1 of the present invention.

VII. Arguments

(A) Extract from the Applicant's Response to Final Action **(Applicant's arguments with respect to independent claims 1, 15, 25 and 51)**

RE: Claim Rejections under 35 USC §102(e)

The examiner has rejected independent claims 1, 15, 25 and 51 under 35 USC §102(e) as anticipated by Rivette. The examiner's rejections with regard to claim 1 have been respectfully traversed for the following reasons. Same arguments apply to other independent claims 15, 25 and 51.

The Examiner's attention has been drawn to claim 1 in this application, and in particular to the step:

- "... (b) processing the claim section, including:
 - (i) transforming multiple dependent claims into single dependent claims;

(ii) sorting the transformed claims by claim numbers to which the claims refer to;

(iii) interchanging positions of any two neighboring sorted claims, the preceding claim and the succeeding claim, if they meet the following requirements:

both claims are dependent claims and refer to different claims; and succeeding claim does not refer to the preceding claim; ..."

As explained in the Applicant's response dated October 25, 2005, during telephone interview with examiners Nathan Hillery and Doug Hutton on December 01, 2005, and in the Applicant's response to the Final Office Action dated February 28, 2006, the steps of claim 1, including the steps (ii) and (iii), form a particularly simple and efficient method, which minimizes the processing time and guarantees the correct results for transforming, sorting, and interchanging claims in preparation for displaying.

In particular, the Applicant has proved a Theorem described in paragraphs [55-57] of the detailed description, on which the method of claim 1, including the steps (ii) and (iii), relies, in order to ensure that the steps of the method of claim 1 preserve the original claim dependency.

Contrary to the examiner's statement in sections 16 and 28 of the examination report dated January 12, 2006, the Applicant states that the above noted steps (ii) and (iii) are not present in Rivette neither expressly nor inherently.

Accordingly, Rivette does not teach each and every element of claim 1 (or claims 15, 25, 51) of the present invention. Therefore the rejection of claims under 35 USC §102(e) as anticipated by Rivette is requested to be withdrawn, in accordance with e.g. court decision *Verdegaal Bros. v. Union Oil Co. of California*, 814, F.2d 628, 631, 2 USPQ2d 1051, 1052 (Fed. Cir. 1987).

RE: Claim Rejections under 35 USC §103(a)

The examiner has rejected claims 53-56 under 35USC §103(a) as obvious in view of Rivette (US 6,339,767).

Claims 53-56 depend on claim 1 and include all limitations of claim 1, which is neither anticipated (see arguments presented above and below in response to the advisory action) nor is obvious in view of Rivette for the following reasons.

In order to lead to claim 1 of the current invention, Rivette would need to perform the following additional steps, namely:

1. (ii) to sort the transformed claims by claim numbers to which the claims refer to;
2. (iii) to interchange positions of any two neighboring sorted claims, the preceding claim and the succeeding claim,
3. then to impose further limitations to the interchanging step (iii), namely to identify that:
both claims, whose positions to be interchanged, have to be dependent claims and refer to different claims;
4. and then to impose yet another limitation that:

succeeding claim does not refer to the preceding claim; ..."

Clearly, the above noted combination of steps 1-4 cannot be considered obvious.

In addition, someone skilled in the art would have to prove a Theorem, on which the method of the current invention relies (see paragraphs [55-57] of the specification) to ensure that the method steps work properly. Indeed, the method of computerized processing, which would require the proof of the corresponding Theorem, cannot be considered obvious.

There is also no motivation or suggestion in Rivette to perform the above noted processing steps.

The law is well established that the impetus for combining or modifying references must be found in the references themselves, not in the pending application, see e.g. *Orthopedic Equip. Co. v. United States*, 217 U.S.P.Q. 193, 199 (Fed. Cir. 1983), and a recent case *Teleflex v. KSR International*, where Federal Circuit set forth an elevated standard for finding a motivation to combine or modify references (namely, a motivation to combine prior art reference "in the particular manner claimed" in a patent).

Claims 53-56 add further limitations to claim 1, and these additional limitation are neither present nor suggested by Rivette. Therefore claims 53-56 cannot be obvious in view of Rivette.

Accordingly, the Examiner's rejections of claims 53-56 under 35 USC §103(a) are requested to be withdrawn.

(B) Response to Advisory Action

In the Advisory Action, the examiner replied that the Patent Office contends that Rivette teaches limitations of steps (ii) and (iii) of claims 1, 15, 25 or 51.

1. Regarding step (ii) of claim 1:

"(ii) sorting the transformed claims by claim numbers to which the claims refer to;..."

The Examiner has stated the following:

" Specifically, Rivette et al. teach that These hyperbolic browser implementations conceptually map non-root nodes in the DAG that have multiple parent nodes to multiple nodes in the hyperbolic tree, wherein each of these nodes are linked to a single parent node in the hyperbolic tree, ..., which is equivalent to sorting. Further, Rivette et al illustrates in Figs 181 and 183 that the claims are sorted by claim number within the broadest, reasonable interpretation of "sort" " (underlining made by the Applicant).

The Applicant strongly disagrees with this statement for the following reasons.

1. There is no indication that Rivette performs sorting of any kind. In particular, contrary to the examiner's statement, Fig. 181 and Fig. 183 of Rivette, do not show claims sorted "by claim number within the broadest reasonable interpretation of sort".

According to Rivette, Fig. 181 illustrates a citation analysis graph (see Brief Description of the Figures, col. 8, lines 61-62), and Fig 183 illustrates an example tree corresponding to the citation analysis graph of Fig. 181 (col. 8, lines 65-66).

Clearly, citation analysis graph and tree have nothing to do with claims of a patent document.

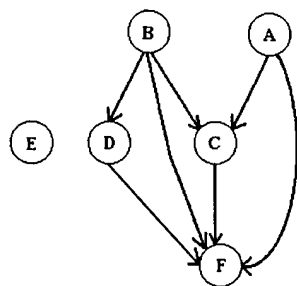
Instead, the attention of the Appeal Board is drawn to Fig. 171 of Rivette, which illustrates an example patent claims tree, and which clearly shows that claims shown in Fig. 171 are not sorted. This proves that Rivette does not perform claim sorting.

Even if citation analysis graph and tree of Fig. 181 and Fig 183 were related to claims of a patent document, they would not show claims sorted “by claim number within the broadest reasonable interpretation of sort” for the following reason.

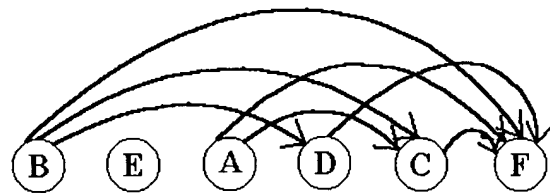
It is known that the only “reasonable interpretation of sort” that can be performed on a DAG is a well known topological sorting. For convenience of the Appeal Board, a definition of topological sorting is reproduced below together with the accompanying illustration:

McGill University: School of Computer Science, Winter 1997 Class Notes for 308-251, DATA STRUCTURES AND ALGORITHMS Topic #30: DIRECTED ACYCLIC GRAPHS, <http://www.cs.mcgill.ca/~cs251/OldCourses/1997/topic30/>:

“**Topological sort** is an ordering of vertices in a **DAG** such that, if there is path from node **u** to node **v**, then **v** appears after **u** in the ordering. Therefore, a cyclic graph cannot have a topological order. A **topological sort** of a graph can be viewed as an ordering of its vertices along a horizontal line so that all directed edges go in one direction.”

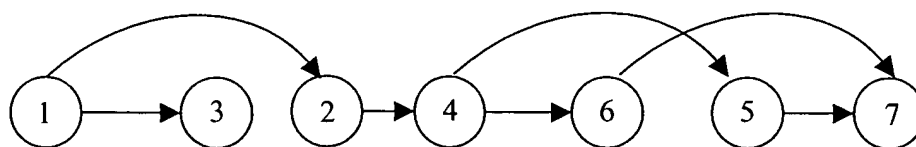


Original DAG



Topologically Sorted DAG

If the DAG of Fig.181 of Rivette were topologically sorted, it would look as follows:



Please note that nodes of the topologically sorted DAG are ordered along a horizontal line so that all directed edges go in one direction, as required by the definition of topological sorting.

Clearly, the topologically sorted DAG shown above is different from the DAG of Fig. 181 of Rivette, which proves that, contrary to the examiner's statement, the DAG of Fig. 181 of Rivette is not sorted.

Similar considerations apply to Fig. 183 of Rivette, proving that, contrary to the examiner's statement, the tree shown in Fig. 183 of Rivette is not sorted.

In combination, the above arguments clearly show that step (ii) of claim 1 of the present invention is not taught by Rivette.

2. In the above cited statement from the Advisory action, the examiner has given his own definition of sorting that involves “... map ... nodes in the DAG ... to ... nodes in the hyperbolic tree, ... is equivalent to sorting.” (the definition has been shortened by the Applicant to reduce to its essentials, but a full definition cited above in the examiner's statement has the same meaning).

This examiner's definition has not been proved to be correct and recognized by the scientific community. Clearly, the examiner's definition of sorting does not possess established scientific merits, and therefore cannot be applied to the applicant's invention (or for that matter to any other invention).

The examiner is challenged to provide a proof that the examiner's definition of sorting is equivalent to topological sorting, and to prove that Rivette teaches this sorting.

3. The procedure, equated by the examiner to a sorting procedure and asserted to be performed in this capacity by Rivette, involves “map ... nodes in the DAG ... to ... nodes in the hyperbolic tree”.

The attention of the Appeal Board is drawn to Fig. 179 of Rivette, wherein Rivette illustrates mapping of a graph to a tree. By mapping a graph to a tree, Rivette does not do sorting, instead Rivette provides removal of multiple dependencies.

In contrast, in the step (ii) of claim 1 of the present invention, the applicant performs a numerical sorting on a sequence of numbers. This means that even if such “equated sorting procedure” suggested by the examiner were performed by Rivette, it would be different from the step (ii) of claim 1 of the present invention, because it would be performed on a different data structure, which is not present in the applicant's invention.

Accordingly, the Examiner's statement that Rivette teaches the step (ii) of the present invention is incorrect, and therefore is not applicable to the present invention.

2. Regarding step (iii) of claim 1:

(iii) interchanging positions of any two neighboring sorted claims, the preceding claim and the succeeding claim, if they meet the following requirements:

both claims are dependent claims and refer to different claims; and
succeeding claim does not refer to the preceding claim; ..."

In the Advisory action, the examiner states that claim scope of claim 1 is not limited by claim language of step (iii), because this step includes the word "if", which suggests or makes this step optional, i.e. not required to be performed (MPEP 2111.04 and MPEP 2106 III C).

The Applicant disagrees with this statement of the examiner for the following reasons.

The MPEP says that "The determination of whether each of these clauses ((A) "adapted to" or "adapted for" clauses; (B) "wherein" clauses; and (C) "whereby" clauses) is a limitation in a claim depends on the specific facts of the case (the "italic" and "bold" being added by the Applicant).

The presence of word "if" in the step (iii) of claim 1 defines a condition, or a requirement for including a claim into a sub-set of claims, which are processed differently from the rest of the claims. This means that the condition of step (iii) is a limitation in claim 1, which is material to patentability of the present invention.

The attention of the Appeal Board is drawn to the fact that part of step (iii) is always performed, i.e. the verification that "both claims are dependent claims and refer to different claims; and succeeding claim does not refer to the preceding claim" is always performed, regardless of interchanging positions of two neighboring claims.

Therefore the step (iii) cannot be considered optional and cannot be ignored without destroying the intended functionality of claim 1, which is in compliance with recent case law *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329, 74 USPQ2d 1481, 1483 (Fed. Cir. 2005), where the court held that when a " 'whereby' clause states a condition that is material to patentability, it cannot be ignored in order to change the substance of the invention."

Accordingly, the Examiner's statement that claim scope of claim 1 is not limited by claim language of step (iii) of the present invention is incorrect, and therefore is not applicable to the present invention.

3. Finally, when evaluating the scope of a claim, every limitation in the claim must be considered (MPEP 2106 II C, page 2100-9): "Office personnel may not dissect a claimed invention into discrete elements and then evaluate the elements in isolation. Instead, the claim as a whole must be considered, see e.g. *Diamond v. Diehr*, 450 U.S. at 188-89, 209 USPQ at 9."

Accordingly, the Applicant requests to consider all steps of claim 1, including steps (i)-(iii) together, instead of dissecting claim 1 into discrete steps as it has been done by the examiner (as in combination, steps (i)-(iii) form a simple and efficient computerized method of processing a claim section of a patent document, which is unique and not taught by any existing prior art).

VIII. Possible amendments to claims

In response to the Final action, the applicant has proposed minor clarifying amendments in claims 54 and 56, but these amendments have not been entered:

54. (Currently amended) A method as described in claim 53, wherein the step (d) of converting comprises converting said triplets into respective graphical elements which are arranged into a ~~substantially~~ linear tree, wherein vertical and horizontal positions of the graphical elements in the tree are defined by the vertical and horizontal offsets in the respective triplets.

56. (Currently amended) A method as described in claim 55, wherein the step (f) comprises a simultaneous displaying a subset of graphical elements from said ~~substantially~~ linear tree along with the related subset of fourth elements from the quadruplets.

The examiner states that these amendments potentially raise new issues and significantly change the scope of the claimed invention, thus requiring further search and/or consideration.

On the contrary, the applicant views these amendments as being rather minor and of clerical nature, just clarifying the language of these claims, which would not require additional search or consideration.

The Applicant has also proposed to cancel claims 12, 24, 46 and 47, but these amendments have not been entered.

IX. Authorities supporting the Applicant's position

The applicant relies upon the decisions *Verdegaal Bros. v. Union Oil Co. of California*, 814, F.2d 628, 631, 2 USPQ2d 1051, 1052 (Fed. Cir. 1987), *Orthopedic Equip. Co. v. United States*, 217 U.S.P.Q. 193, 199 (Fed. Cir. 1983), *Teleflex v. KSR International*, *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329, 74 USPQ2d 1481, 1483 (Fed. Cir. 2005), and *Diamond v. Diehr*, 450 U.S. at 188-89, 209 USPQ at 9 as described above.

It is submitted that, on a proper application of the principles set out in these decisions to the present situation, claims 1, 15, 25 and 51 are not anticipated by Rivette, and claims 53-56 are not obvious in view of Rivette.

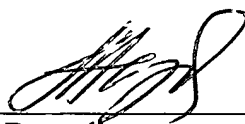
X. Conclusion

In conclusion, the applicant respectfully submits that the Examiner's rejections of independent claims 1, 15, 15 and 51 are unjustified and improper.

As a result, rejections of respective dependent claims 2, 5, 7-16, 19, 21-27, 37-40, 43, 46, 47 and 51-56 (while considered in conjunction with the proposed deletion of claims 12, 24, 46, 47 and amendment of claims 54 and 56) are also unjustified and improper.

It is therefore respectfully requested that these rejections be over-ruled and that this application be allowed.

Yours truly,
Dr. Allan Williams

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Appendix

A copy of claims 1, 2, 5, 7-16, 19, 21-27, 37-40, 43, 46, 47 and 51-56 in this appeal follows.

1. (Previously presented) A method of computerized generation of a derivative value enhanced document from a patent document, comprising the steps of:

- (a) selecting a claim section of the patent document;
- (b) processing the claim section, including:
 - (i) transforming multiple dependent claims into single dependent claims;
 - (ii) sorting the transformed claims by claim numbers to which the claims refer to;
 - (iii) interchanging positions of any two neighboring sorted claims, the preceding claim and the succeeding claim, if they meet the following requirements:
 - both claims are dependent claims and refer to different claims; and
 - succeeding claim does not refer to the preceding claim;
- (c) extracting claim dependency and text of claims from the interchanged claim section;
- (d) converting the extracted claim dependency into a graphical form, comprising a set of graphical elements, each element corresponding to an individual claim or a group of claims;
- (e) converting the extracted text of claims into a textual form, comprising a set of elements, each element being a text of an individual claim or a text of a group of claims;
- (f) forming a derivative claim section by combining the converted graphical and textual elements of the converted claim dependency and text of claims in the order obtained after the step (iii) of interchanging; and
- (g) forming the derivative document by combining the derivative claim section with the patent document or a part of the patent document.

2. (Previously presented) A method as described in claim 1, wherein the steps of converting further comprise establishing links between the elements of the graphical and textual subsets according to the transformed claim dependency.

3. (Canceled)

4. (Canceled)

5. (Previously presented) A method as described in claim 1, further comprising one or more of the following:

displaying the selected subsets of elements on a computer screen; and

displaying the selected subsets of elements on a computer screen in combination with other elements of the sets.

6. (Canceled)

7. (Previously presented) A method as described in claim 1, wherein the step (e) comprises converting into the form selected from the list consisting of ASCII, HTML, SGML, XHTML, and XML formats.

8. (Previously presented) A method as described in claim 1, wherein the step (g) comprises a step selected from the list consisting of:

forming the document so that the derivative claim section is replacing the claim section of the patent document;

forming the document so that the derivative claim section is supplementing the patent document;

forming the document so that the derivative claim section is supplemented by a part of the patent document; and

forming the document so that the derivative document is the derivative claim section of the patent document.

9. (Original) A method as described in claim 1, further comprising a step of performing one or more of the following:

storing data obtained in at least one of the steps in a database;

sending data obtained in at least one of the steps over a network;

compressing data obtained in at least one of the steps;

displaying one of the derivative document and the derivative segment on a computer screen.

10. (Previously presented) A method as described in claim 1, wherein the step (b)

comprises distributed processing of the patent document in a network environment performed by using processing power of more than one computer.

11. (Original) A method as described in claim 10, wherein the step of distributed processing comprises the steps of initial processing of the document performed on a server side and final processing performed on a client side.

12. (Previously presented) A derivative patent document, comprising:

(i) a transformed claim section, in which multiple dependent claims are transformed into single dependent claims, said transformed claims are sorted by claim numbers to which the claims refer to, and the positions of any two neighboring sorted claims, the preceding claim and the succeeding claim, are interchanged if they meet the following requirements:

both claims are dependent claims and refer to different claims; and
succeeding claim does not refer to the preceding claim;
and

(ii) an executable computer program code for interactive displaying the transformed, sorted and interchanged claims of the claim section or any part thereof, or a reference to a file where the computer program code resides, the computer program code being executable in response to an event.

13. (Previously presented) A method of computerized generation of a database stored in a memory, comprising the steps of:

(a) providing a patent document;
(b) performing the steps of the method as described in claim 1; and
(c) storing data obtained in at least one of the steps of the step (b) in a database stored in the memory.

14. (Previously presented) A database stored in a memory and obtained according to the method as described in claim 13.

15. (Previously presented) A method of computerized generation of a derivative claim section from a patent document, comprising the steps of:

(a) selecting a claim section of the patent document;
(b) processing the claim section, including:

- (i) transforming multiple dependent claims into single dependent claims;
- (ii) sorting the transformed claims by claim numbers to which the claims refer to;
- (iii) interchanging positions of any two neighboring sorted claims, the preceding claim and the succeeding claim, if they meet the following requirements:
 - both claims are dependent claims and refer to different claims; and
 - succeeding claim does not refer to the preceding claim;
- (c) extracting claim dependency and text of claims from the interchanged claim section;
- (d) converting the extracted claim dependency into a graphical form, comprising a set of graphical elements, each element corresponding to an individual claim or a group of claims;
- (e) converting the extracted text of claims into a textual form, comprising a set of elements, each element being a text of an individual claim or a text of a group of claims; and
- (f) forming a derivative claim section by combining the converted graphical and textual elements of the converted claim dependency and text of claims in the order obtained after the step (iii) of interchanging, and associating thereof with a computer program code providing a user interactive selection of a subset of elements in one of the graphical and textual forms, and displaying said subset in the selected form along with the related subset of elements according to the transformed claim dependency in the other form to a user, the elements in the graphical form being displayed in the order obtained after the step (iii) of interchanging.

16. (Previously presented) A method as described in claim 15, wherein the steps of converting further comprise establishing links between the elements of the graphical and textual subsets according to the transformed claim dependency.

17. (Canceled)

18. (Canceled)

19. (Previously presented) A method as described in claim 16, further comprising one or more of the following:

displaying the selected subsets of elements on a computer screen; and

displaying the selected subsets of elements on a computer screen in combination with

other elements.

20. (Canceled)

21. (Previously presented) A method as described in claim 15, wherein the step (e) comprises converting into the form selected from the list consisting of ASCII, HTML, SGML, XHTML and XML formats.

22. (Previously presented) A method as described in claim 15, wherein the step (b) comprises distributed processing of the claim section in a network environment performed by using processing power of two or more computers.

23. (Previously presented) A method as described in claim 22, wherein the step of distributed processing comprises the steps of initial processing of the claim section performed on a server side and final processing of the claim section performed on a client side.

24. (Previously presented) A derivative claim section of a patent document, comprising:

(i) a transformed claim section, in which multiple dependent claims are transformed into single dependent claims, said transformed claims are sorted by claim numbers to which the claims refer to, and the positions of any two neighboring sorted claims, the preceding claim and the succeeding claim, are interchanged if they meet the following requirements:

both claims are dependent claims and refer to different claims; and
succeeding claim does not refer to the preceding claim;
and

(ii) an executable computer program code for interactive displaying the transformed, sorted and interchanged claims of the claim section or any part thereof, or a reference to a file where the computer program code resides, the computer program code being executable in response to an event.

25. (Previously presented) A computerized system for generating a derivative document from a patent document, comprising a computer having a memory, said memory comprising:

(a) means for selecting a claim section of the patent document;
(b) means for processing the claim section, including:

- (i) means for transforming multiple dependent claims into single dependent claims;
- (ii) means for sorting the transformed claims by claim numbers to which the claims refer to;
- (iii) means for interchanging positions of any two neighboring sorted claims, the preceding claim and the succeeding claim, if they meet the following requirements:

- both claims are dependent claims and refer to different claims; and
 - succeeding claim does not refer to the preceding claim; and

(c) means for adding a new section to the patent document or to a part thereof to form the derivative document, the new section comprising a computer program code for interactive displaying the transformed sorted and interchanged claim section or any part thereof, or a reference to a file where the computer program code resides, the computer program code being executable in response to an event.

26. (Original) A computerized system as described in claim 25, further comprising means for sending the derivative document over a network.

27. (Previously presented) A computerized system as described in claim 25, wherein the means (b) comprises means for distributed processing of the document in a network, wherein processing power of two or more computers is used.

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Canceled)

37. (Previously presented) A method as described in claim 1, wherein the step of

selection of the subset of elements comprises the step selected from the list consisting of:

selecting the subset comprising only one element in one form, and displaying the selected subset in said one form with the related subset comprising the corresponding element of the other form;

selecting the subset comprising only one element in one form, and displaying the selected subset in said one form along with the related subset in the other form comprising first and second elements, wherein the first element corresponds to the selected element of the first form, and the second element is the element on which the first element refers to according to claim dependency;

selecting the subset comprising elements of one form corresponding to independent claims only, and displaying the selected subset in said one form along with the related subset in the other form comprising elements of the other form corresponding to the selected elements of said one form;

selecting the subset comprising elements in one form corresponding to an independent claim and all the dependent claims referred thereto only, and displaying the selected subset in said one form along with the related subset comprising elements in the other form corresponding to the selected elements in said one form; and

selecting the first subset comprising an independent claim only in one form, and displaying the selected subset in said one form along with the related subset comprising elements in the other form corresponding to the selected independent claim and all dependent claims referred thereto.

38. (Previously presented) A method as described in claim 37, further comprising one or more of the following:

displaying the selected subsets of elements on a computer screen; and

displaying the selected subsets of elements on a computer screen in combination with other elements of the sets.

39. (Previously presented) A computer program product for generating a derivative document from a patent document, comprising a computer usable medium having computer readable program code means embodied in said medium for causing said computer to perform the steps of the method as described in claim 1.

40. (Previously presented) A computer program product for generating a derivative claim section of a patent document, comprising a computer usable medium having computer readable program code means embodied in said medium for causing said computer to perform the steps of the method as described in claim 15.

41. (Canceled)

42. (Canceled)

43. (Previously presented) A method as described in claim 1, wherein the step (i) further comprises one of the following:

adding single dependent claims generated from multiple dependent claims to the end of original set of claims; or

inserting claims generated from a multiple dependent claim into original set of claims immediately after the multiple dependent claim, followed by re-numbering of claims starting from the multiple dependent claim and to the end of claim section.

44. (Canceled)

45. (Canceled)

46. (Previously presented) A computer database stored in a memory, the database storing derivative patent documents of claim 12.

47. (Previously presented) A derivative patent document as described in claim 12, the derivative patent document being presented in a web compatible form such that to be recognized by a browser.

48. (Canceled)

49. (Canceled)

50. (Canceled)

51. (Previously presented) A computerized system for generating a derivative claim section of a patent document, the system comprising a computer having a memory, said memory comprising:

(a) means for processing the claim section, including:(i) means for

transforming multiple dependent claims into single dependent claims;

(ii) means for sorting the transformed claims by claim numbers to which the claims refer to;

(iii) means for interchanging positions of any two neighboring sorted claims, the preceding claim and the succeeding claim, if they meet the following requirements:

both claims are dependent claims and refer to different claims; and
succeeding claim does not refer to the preceding claim; and

(b) means for extracting claim dependency and text of claims from the interchanged claims;

(c) means for converting the extracted claim dependency into a graphical form, comprising a set of graphical elements, each element corresponding to an individual claim or a group of claims;

(d) means for converting the extracted text of claims into a textual form, comprising a set of elements, each element being a text of an individual claim or a text of a group of claims; and

(e) means for forming a derivative claim section by combining the converted graphical and textual elements of the converted claim dependency and text of claims in the order obtained after the step (iii) of interchanging, and associating thereof with a computer program code providing a user interactive selection of a subset of elements in one of the graphical and textual forms, and displaying said subset in the selected form along with the related subset of elements according to the transformed claim dependency in the other form to a user, the elements in the graphical form being displayed in the order obtained after the step (iii) of interchanging.

52. (Previously presented) A method as described in claim 1, wherein the step (f) further comprises associating the derivative claim section with a computer program code providing a user interactive selection of a subset of elements in one of the graphical and textual forms, and displaying said subset in the selected form along with the related subset of elements according to the transformed claim dependency in the other form to a user, the elements in the graphical form being displayed in the order obtained after the step (iii) of interchanging.

53. (Previously presented) A method as described in claim 1, wherein the step (c) of extracting claim dependency comprises forming a respective triplet for each interchanged claim, the triplet comprising first, second and third elements which are respectively as follows:

a claim number;

a vertical offset, characterizing a vertical position of the claim, which is defined by the relative position of the claim compared to the first claim in the interchanged set of claims;

a horizontal offset, characterizing a horizontal position of the claim, which is defined by the level of claim dependency for the claim.

54. (Previously presented) A method as described in claim 53, wherein the step (d) of converting comprises converting said triplets into respective graphical elements which are arranged into a substantially linear tree, wherein vertical and horizontal positions of the graphical elements in the tree are defined by the vertical and horizontal offsets in the respective triplets.

55. (Previously presented) A method as described in claim 54, wherein the step (c) further comprises forming a corresponding quadruplet for each interchanged claim, the quadruplet comprising the respective triplet and a fourth element, which is a text of the claim.

56. (Previously presented) A method as described in claim 55, wherein the step (f) comprises a simultaneous displaying a subset of graphical elements from said substantially linear tree along with the related subset of fourth elements from the quadruplets.